

Abstract: In this work we are focusing on Monte Carlo simulation tests, in particular we are dealing with envelope and deviation tests. We describe the development of envelope tests from standard envelope tests, in which we can not control significance level, through refined envelope tests, where we can control the significance level indirectly, to exact envelope tests, for which the significance level can be chosen in advance. We will show how the exact envelope tests are related to deviation tests. Further we compare individual kinds of tests using examples and describe their advantages and disadvantages.